

Work Order ID 136276-1

Friday, August 28, 2015 2:16:28 PM

136276

Page 1

Item ID: 646.3001

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Lower Cutter Assy

Start Date: 8/28/2015 Start Qty: 6.00

6

Cust Item ID:

Required Date: 8/28/2015 Req'd Qty: 6.00

6

Customer:

Reference:

Approvals: Process Plan: SH/LL 00150901

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
646.3000	N/C

110 Pick Kit 0.00

110

Packaging

Memo

0.00

Packaging

3x

15/10/21 DAS 36 9-89

120

0.00

120

Small Fab

Memo

0.07

Small Fab

Assemble as per dwg and apply loctite 598 on all faying surfaces shown on dwg per note 7.

A/R RTV LOCTITE 598:
exp. date: 05/17

M133275

3x

15/10/21 DAS 36 9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																						
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Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																						
Large Fab ☐	Composite ☐	Supplier ☐																							
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																		
Description Work Order Deviation				Disposition				Completed By																	
								Lead hand / Supervisor Approval Verification																	
								QC / QA Coordinator Approval																	
Root Cause		FAULT CATEGORY																							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐																				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐																				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐																				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐																				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐																				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐																				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐																				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐																				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐																				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐																				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____																							
Misidentified ☐	Past Due ☐																								

Work Order ID 136276***136276***

Page 2

Item ID: 646.3001

Accept

N900040100Setup Start ***NS1***

Revision ID:

Item Name: Lower Cutter Assy

Stop ***NS2***

Start Date: 8/28/2015 Start Qty: 6.00

6

Cust Item ID:

Required Date: 8/28/2015 Req'd Qty: 6.00

6

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	QC5- Inspect part completeness to step on W/O	0.00							DAS 38 9-89
130						3			
QC	Memo	0.02							
Quality Control									OCT 22 2015
140	Identify as per dwg & Stock Location <u>CCKDF</u>	0.00							
140						3			
Packaging	Memo	0.00							OCT 26 2014 DAS 8 9-89
Packaging	***IDENTIFY AS PER APICAL MPP-120 BY STAMPING THE P# AND REV***								
150	QC21- Final Inspection - Work Order Release	0.00							
150									
QC	Memo	0.00							
Quality Control									MLJ OCT 26 2015

SHA 20151026

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabelled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Picklist Print

Friday, August 28, 2015 1:48:52 PM

Page 1

Work Order ID: 136276

136276

Parent Item: 646.3001

646.3001

Parent Item Name: Lower Cutter Assy

Start Date: 8/28/2015

Required Date: 8/28/2015

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP REV:A 12.10.19 NEW ISSUE DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MS21042L08		Purchased	No				Each	896.0000		114			
MS21042L 08									**			15/10/21	DAS 36 9-89
Nut													

Location	Loc Qty	Loc Code
CA	101	
m129682	101	
ST260a	106	
m131697	106	
ST304	689	
123900	16	
m128401	102	
m128429	3	
m131317	68	
m132930	500	

646.3010		Manufactured	No			110	Each	7.0000	1	6			
646.3010									**			15/10/21	DAS 36 9-89
LH Half													

Location	Loc Qty	Loc Code
MF	7	
128968	7	

646.3011		Manufactured	No			110	Each	19.0000	1	6			
646.3011									**			15/10/21	DAS 36 9-89
RH Half													

Location	Loc Qty	Loc Code
MF	19	
126778	19	

M133134
(57x)

3

6

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QS1042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER : _____							

Picklist Print

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Page 2

Work Order ID: 136276

136276

Parent Item: 646.3001

646 3001

Parent Item Name: Lower Cutter Assy

Start Date: 8/28/2015

Required Date: 8/28/2015

Start Qty: 6.00

Required Qty: 6.00

646.3012 Manufactured No

110 Each 16.0000 1 6

646 3012

Lower Guide

**

DAS
36
9-89

Location

Loc Qty

Loc Code

MF

16

122950

4

128426

4

130736

8

✓ 2
4
6

646.3013 Manufactured No

110 Each 13.0000 1

646 3013

Blade

**

DAS
36
9-89

Location

Loc Qty

Loc Code

MF

13

127805

7

130894

6

6

646.3014 Manufactured No

110 Each 8.0000 1

646 3014

Blade

**

DAS
36
9-89

Location

Loc Qty

Loc Code

MF

8

128449

2

130960

6

4
6

646.3015 Manufactured No

110 Each 0.0000 1

646 3015

Blade

**

DAS
36
9-89

✱

B136216

3x

15/10/21

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval																	
Description Work Order Deviation		Disposition		Completed By																	
				Lead hand / Supervisor Approval Verification																	
				QC / QA Coordinator Approval																	
Root Cause		FAULT CATEGORY																			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐																
OTHER : _____																					

Picklist Print

Friday, August 28, 2015 1:48:52 PM

Page 3

Work Order ID: 136276

136276

Parent Item: 646.3001

646.3001

Parent Item Name: Lower Cutter Assy

Start Date: 8/28/2015

Required Date: 8/28/2015

Start Qty: 6.00

Required Qty: 6.00

MS27039-08-19

Purchased

No

110

Each

552.0000

19

114

MS27039-08-19

Screw

**

15/10/21
68-6
93
940

Location

Loc Qty

Loc Code

ST273A

523

m131317

273

m132930

250

ST281

29

m131264

29

NAS1149FN832P

Purchased

No

110

Each

2,488.000

38

228

NAS1149FN832P

Washer

**

15/10/21
68-6
93
940

Location

Loc Qty

Loc Code

ST260a

1500

125268

1500

st268

988

125268

67

M130388

921

114

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

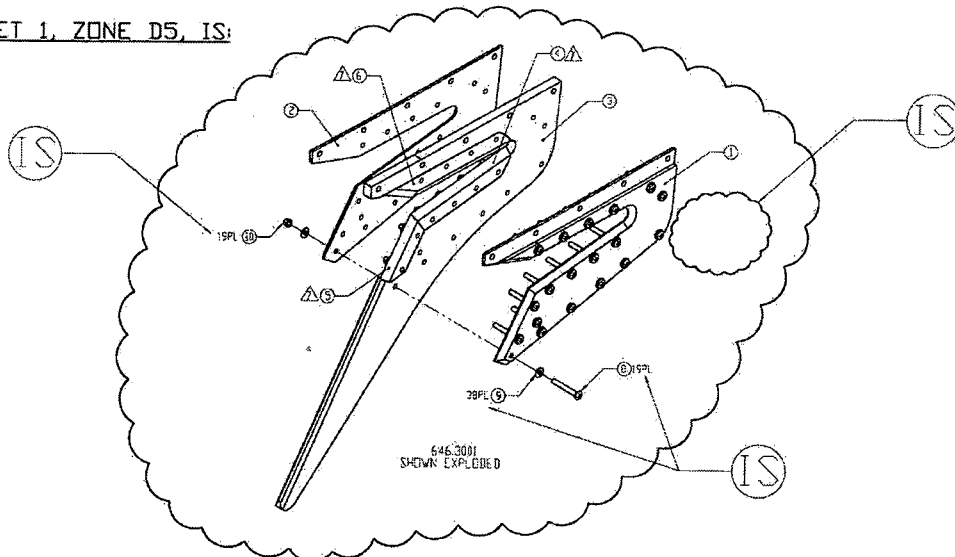
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
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Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

APICAL
INDUSTRIES, INC.

ENGINEERING CHANGE NOTICE NO. 02195 SHEET 1 OF 4
 DWG NO. 646.3000 REV: N/C PREPARED BY S. HUFF DATE: 01/05/09 EFFECT ON DWG
 DWG TITLE: LOWER CUTTER ASSY
 APPROVED BY: ENGR [Signature] MFR [Signature] QC [Signature] EFF: NEXT ORDER
 TRANSACTION CODES (TC): A-ADD C-CREATE R-REVISE D-DELETE
 REASON: REMOVED RIVETS IN FAVOR OF ADDITIONAL SCREWS

SHEET 1, ZONE D5, IS:

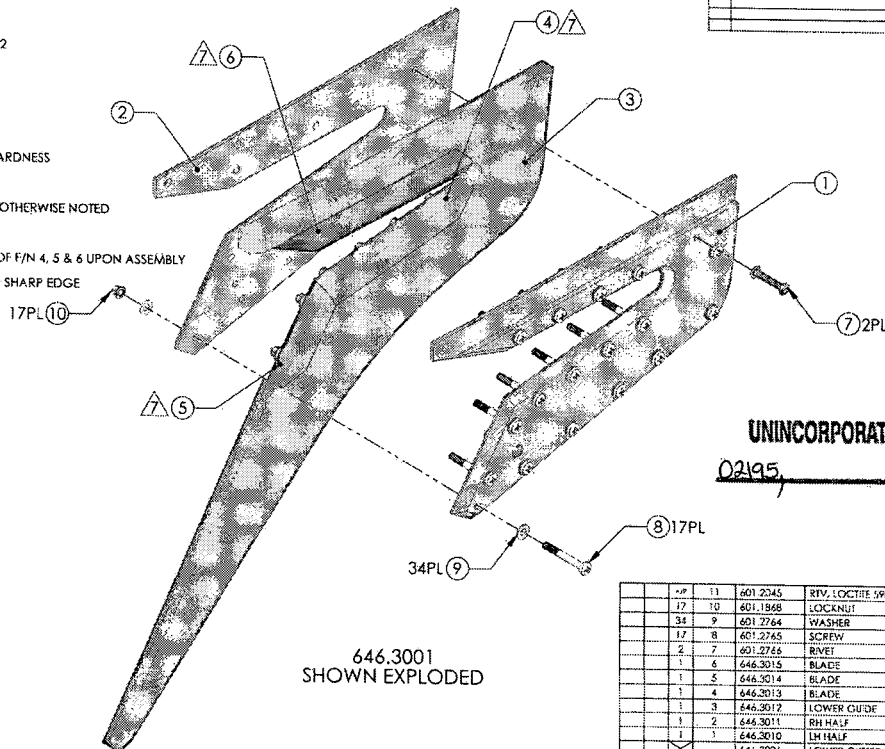


10	R	601.1541	19	LOCKNUT	MS21042L08
9	R	601.2764	38	WASHER	NAS1149FN832P
8	R	601.2765	19	SCREW	MS27039-0819
7	D	601.2766	2	RIVET	MS20470AD5-18
			3001		
F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL/SPECIFICATION
DOCUMENTS EFFECTED:				☐ MDL ☒ INSTALL INSTRU ☒ ICA ☐ FMS ☒ BOM	CHANGE CATEGORY ☐ MAJOR ☒ MINOR
					DER REVIEW REQUIRED ☐ YES ☒ NO

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES AND IS NOT TO BE REPRODUCED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES & PROMOTED.

NOTES:

- 1 MATERIAL: ALUMINUM 7075-T651 PER AMS-QQ-A-250/12
- 2 FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III, CLASS 2, COLOR BLACK; CARDINAL 4860-50 PRETREATMENT PRIMER PRIME IAW MIL-P-23377 J TYPE I CLASS N
- 3 MATERIAL: AISI A2 TOOL STEEL
CONDITION: ANNEALED
POST PROCESS: HEAT TREAT TO 58-62 Rc ROCKWELL HARDNESS
- 4 FINISH: PRIME IAW MIL-P-23377 J TYPE I CLASS N
- 5 DEBURR AND BREAK ALL SHARP EDGES EXCEPT WHERE OTHERWISE NOTED
- 6 IDENTIFY IAW MPP-120
- 7 APPLY F/N 11 AS REQUIRED TO ALL FAYING SURFACES OF F/N 4, 5 & 6 UPON ASSEMBLY
- 8 CUTTING EDGE INTENDED TO BE SHARP, DO NOT BREAK SHARP EDGE



UNINCORPORATED ECN(s)

02195

646.3001
SHOWN EXPLODED

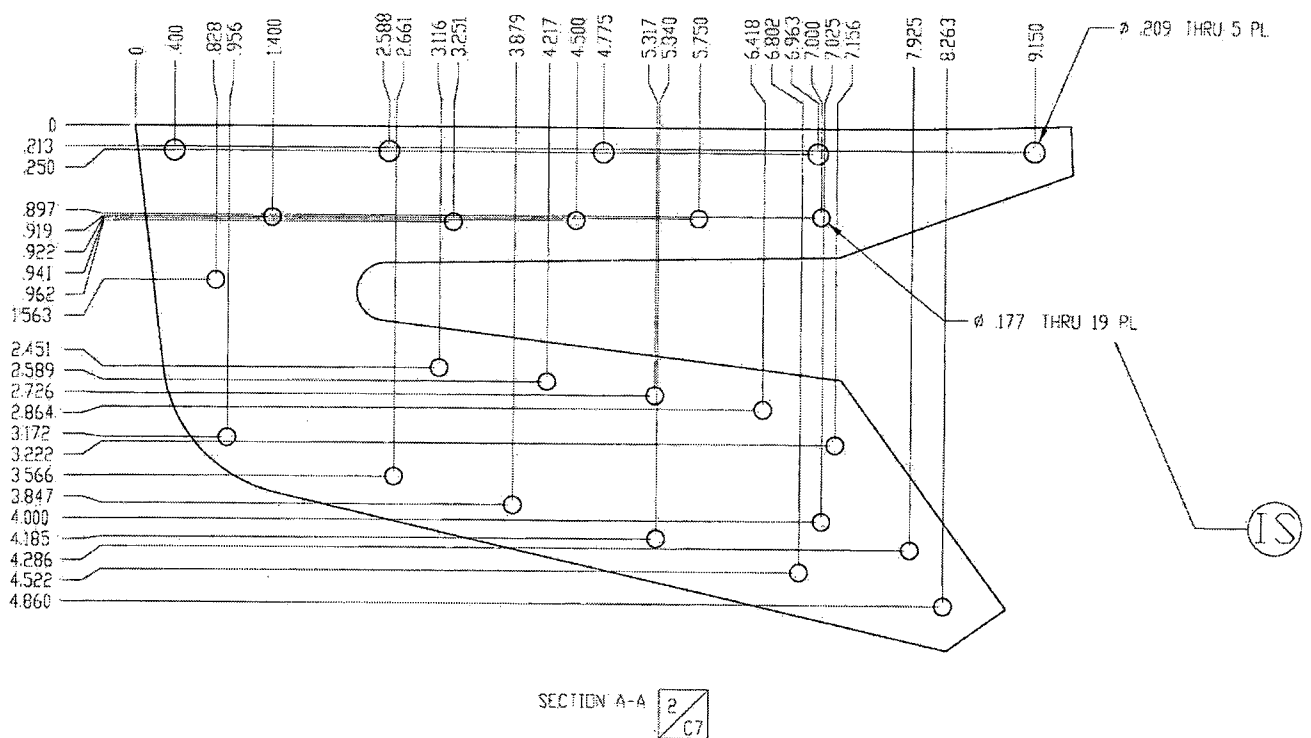
QTY	FIND #	PART #	DESCRIPTION	MAT'L	SPEC.
1	11	601.2345	RIV, LOCITE 598		
1	12	601.1908	LOCKNUT		
1	13	601.2764	WASHER		
1	14	601.2745	SCREW		
1	15	601.2766	RIVET		
1	16	646.3015	BLADE		
1	17	646.3014	BLADE		
1	18	646.3013	BLADE		
1	19	646.3012	LOWER GUIDE		
1	20	646.3011	RH HALF		
1	21	646.3010	LH HALF		
1	22	646.3001	LOWER CUTTER ASSY		
QTY	FIND #	PART #	DESCRIPTION	MAT'L	SPEC.
1	1	646.3001	LOWER CUTTER ASSY		

APICAL INDUSTRIES
2608 TEMPLE HEIGHTS DR.
OCEANSIDE, CA 92056-3512 (760)724-5300

LOWER CUTTER ASSY

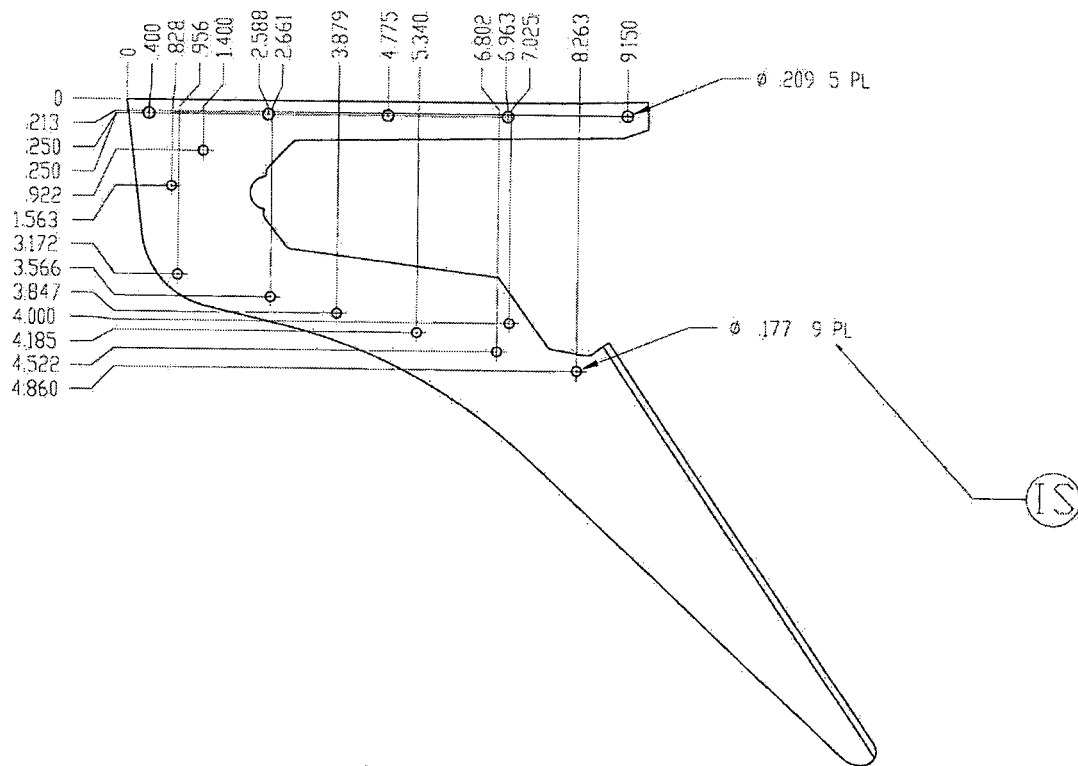
REV: 02195
DATE: 02/19/05
SCALE: NONE
SHEET 1 OF 8

SHEET 3 IS:



F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL/SPECIFICATION
-----	----	-------------	-----	-------------	------------------------

SHEET 5 IS:

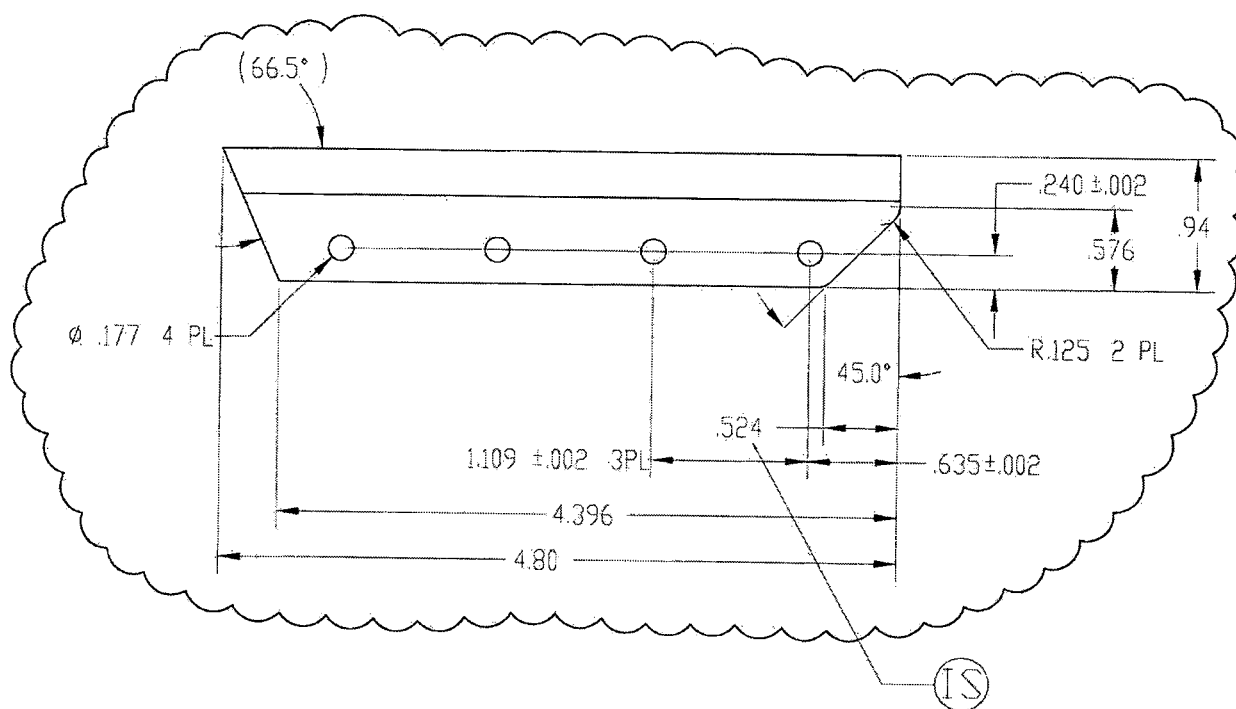


SECTION F-F

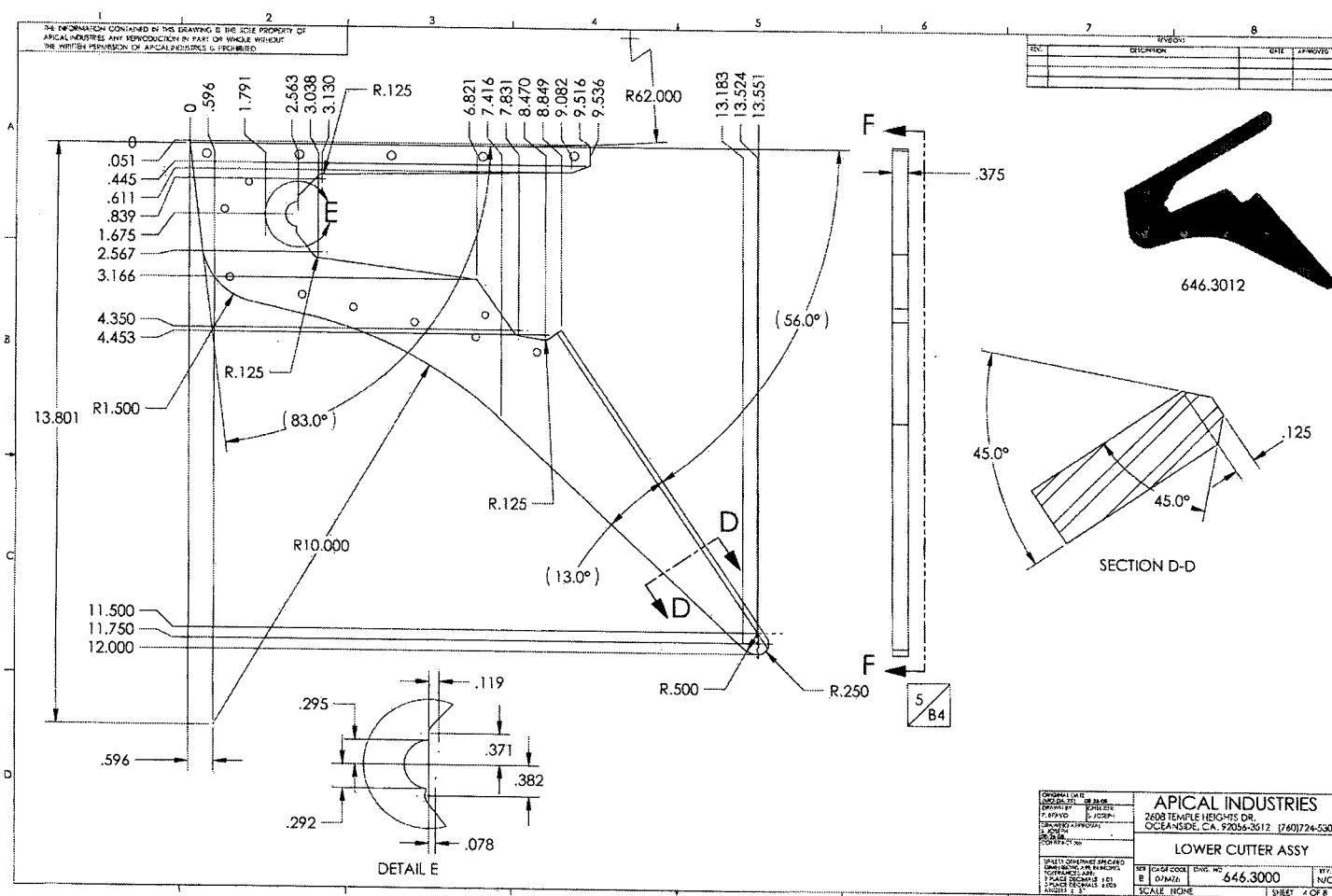


F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL/SPECIFICATION

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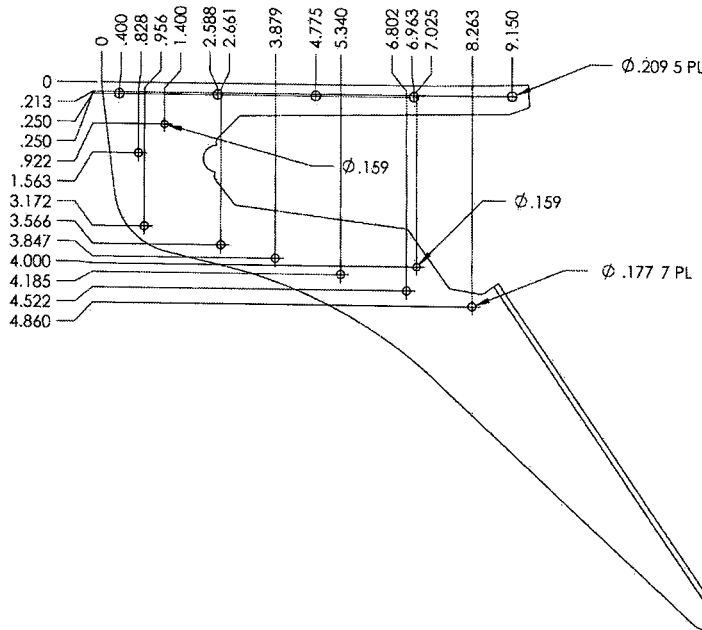


F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL/SPECIFICATION



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REV	DESCRIPTION	DATE	APPROVED

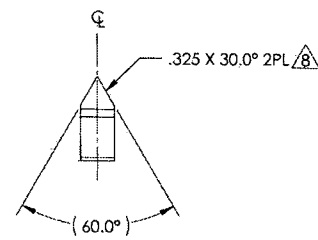
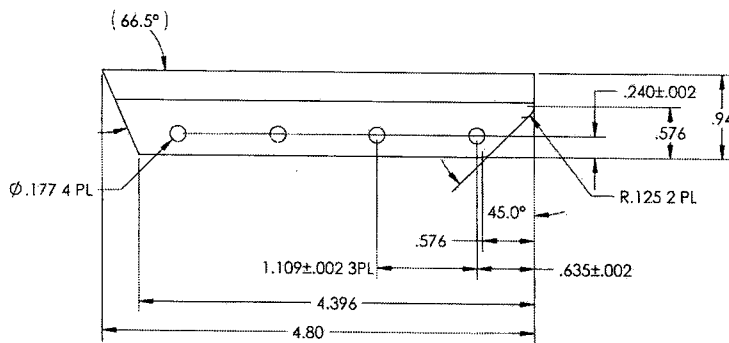
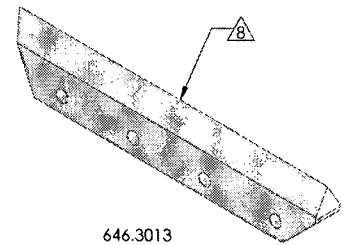


SECTION F-F 4/86

CUSTOMER: APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCFAKSIDE, CA 92306-2512 (760) 724-5300 DATE: 10/1/86 DRAWN BY: J. JOHNSON CHECKED BY: J. JOHNSON APPROVED BY: J. JOHNSON SCALE: NONE	LOWER CUTTER ASSY QTY: 1 PART NO: 646.3000 REV: N/C SCALE: NONE
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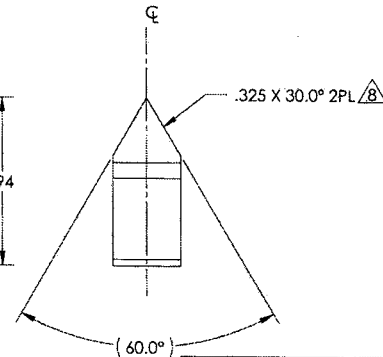
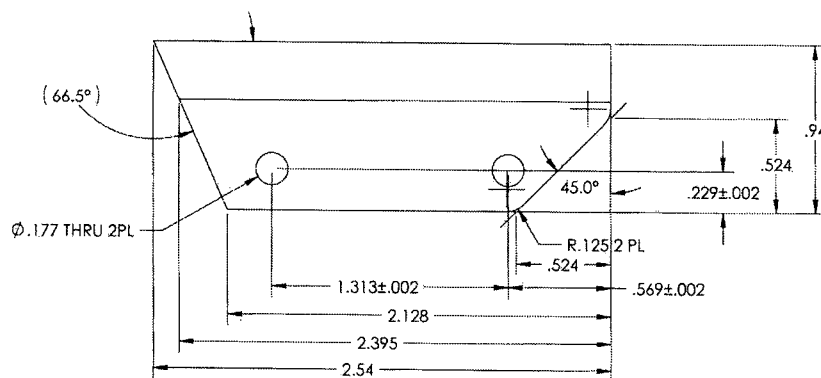
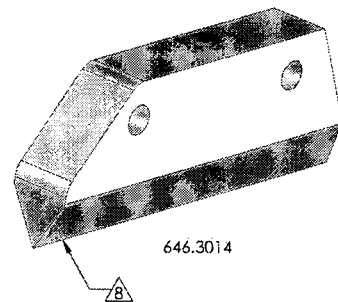
REV	DESCRIPTION	DATE	APPROVED



ORIGINAL DATE 11/20/00 DRAWN BY P. BAYO CHECKED BY J. BAYO APPROVED BY J. BAYO DATE 11/20/00	APICAL INDUSTRIES 3008 TEMPLE HEIGHTS DR. OCEANSIDE, CA 92056-3812 (760)724-5300
PART NAME LOWER CUTTER ASSY PART NUMBER 646.3000 SCALE NONE	REV 1 DATE 07/26/06 BY J. BAYO CHECKED BY J. BAYO

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REV.	DESCRIPTION	DATE	APPROVED

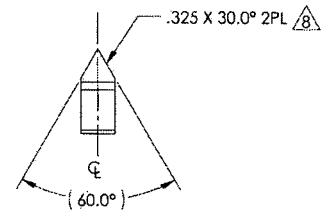
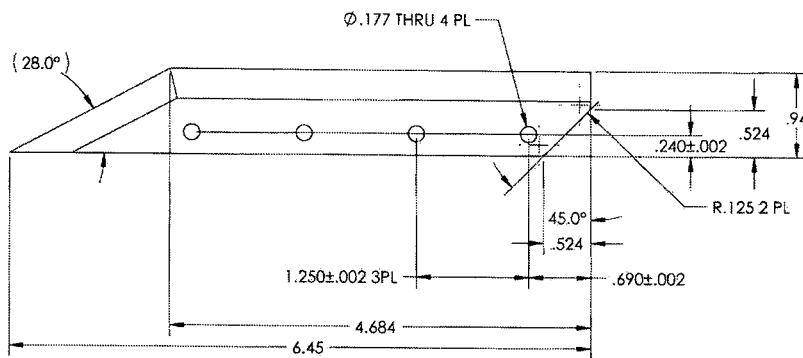
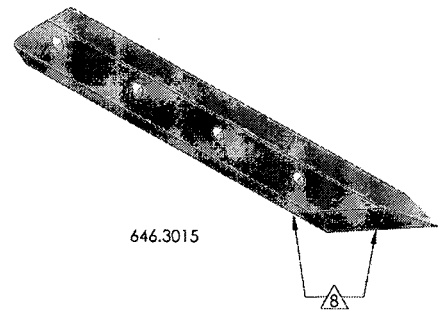
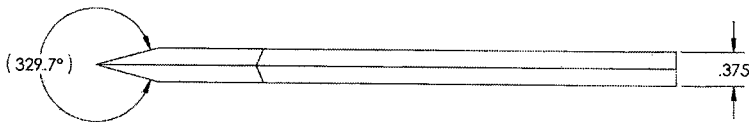


APICAL INDUSTRIES
2608 TEMPLE HEIGHTS DR.
OCEANSIDE, CA 92056-3512 (760)724-5300

LOWER CUTTER ASSY
646.3000
SCALE: NONE
SHEET 7 OF 8

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REV.	DESCRIPTION	DATE	APPROVED

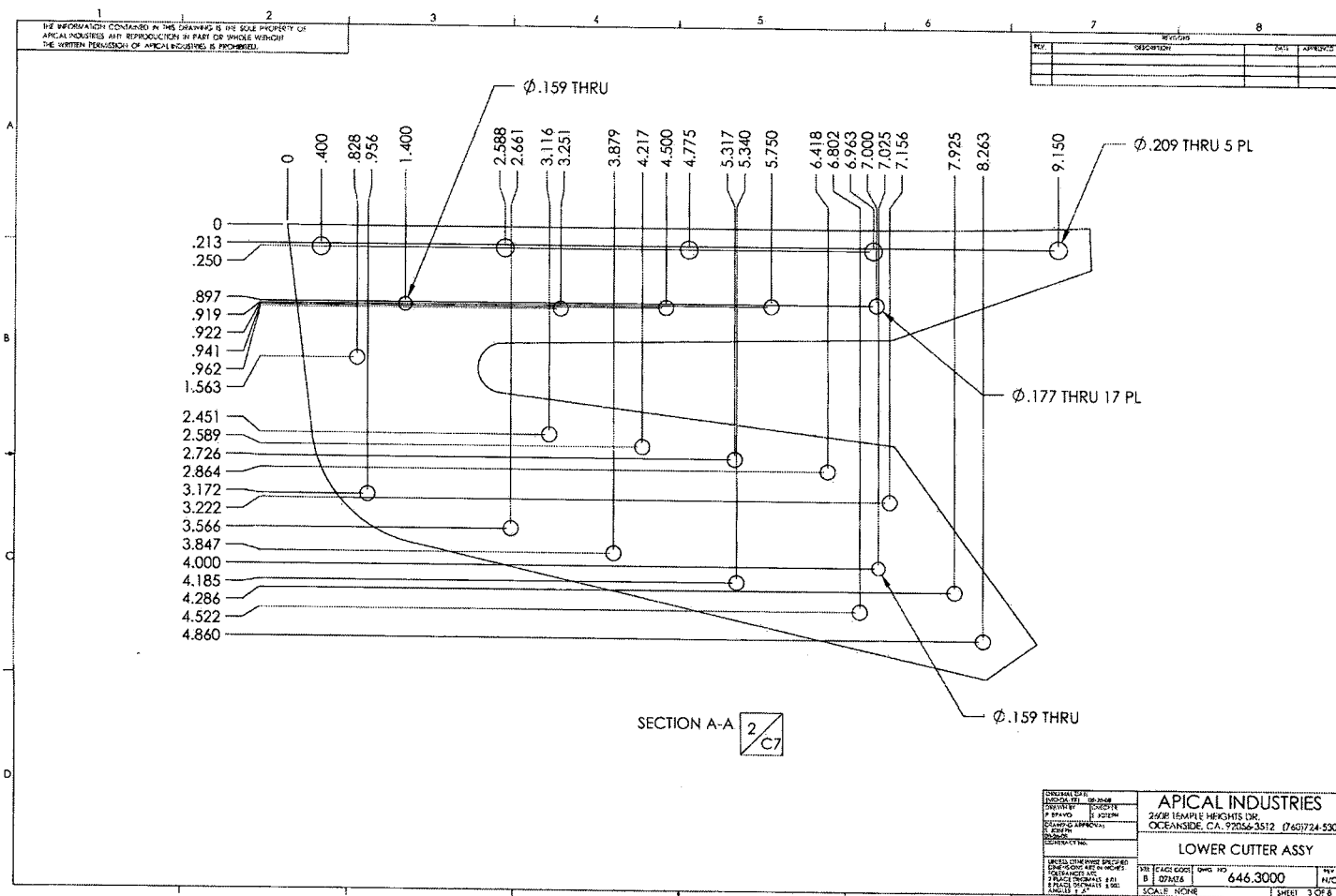


ORIGINAL DATE DESIGNED BY DRAWN BY CHECKED BY APPROVED BY DATE CONTRACT NO.	APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3312 (760)724-3300 LOWER CUTTER ASSY 646.3000 SCALE: NONE	REV. DATE BY NUC
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SHEET 8 OF 8

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REV	DESCRIPTION	DATE	APPROVED



DRAWN BY: [blank] CHECKED BY: [blank] DESIGNED BY: [blank] DATE: [blank] SCALE: [blank]	APICAL INDUSTRIES 2450 155th AVE. N.E. OCEANSIDE, CA. 92056-3512 (760) 724-5300
PART NAME: LOWER CUTTER ASSY PART NO: 646.3000 SCALE: NONE	SHEET: 3 OF 8

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